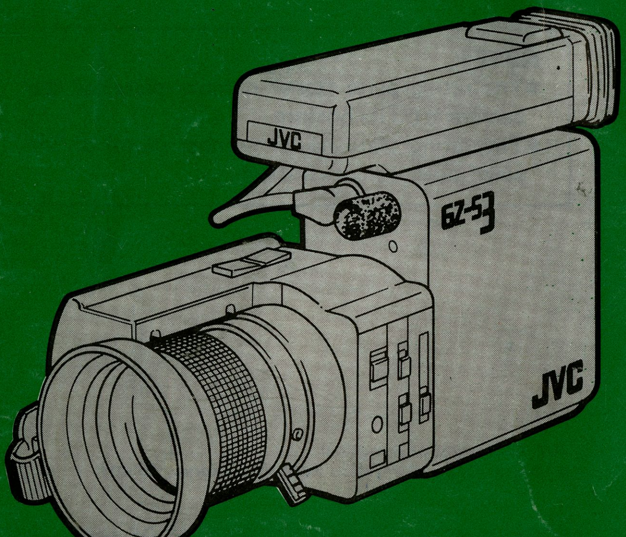
INSTRUCTIONS

JVC®

GZ-S3

COMPACT VIDEO CAMERA

Specifically for the GZ-S3U



For Customer Use:

Enter below the Serial No. which is located on the bottom of the camera. Retain this information for future reference.

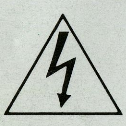
Model No. GZ-S3U

Serial No.

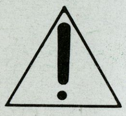
PU30425-498

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

This video camera should be used with 12 V DC only.

CAUTION:

To prevent electric shocks and fire hazards, do NOT use any other power source.

The provided viewfinder should be used exclusively with the GZ-S3 camera.

NOTES:

- The rating plate (serial number plate) of the camera is on its bottom.
- The rating plate (serial number plate) of the viewfinder is on its bottom.

JVC Company of America
41 Slater Drive, Elmwood Park, New Jersey 07407

COPYRIGHT © 1982 VICTOR COMPANY OF JAPAN, LTD.
Printed in Japan

Thank you for purchasing the JVC GZ-S3 color video camera, a compact camera that's truly portable. Incorporating a Saticon* tube, newly developed for use with home video cameras from the type used extensively in TV broadcast cameras, it boasts picture quality and color reproduction that have been previously attained only by the most expensive full-size cameras. Its excellent performance makes it an ideal camera for use with any JVC video recorder, but the GZ-S3 is designed specifically with the HR-C3 in mind. Combine the GZ-S3 with the HR-C3, and you will discover a new excitement in making your "portable" video productions.
To take best advantage and gain the most service from your GZ-S3, read this instruction booklet carefully and thoroughly.

*Saticon is a registered trademark.

CONTENTS

Features	3
Precautions	4
Maintenance	4
Basic operation procedure	5
Mounting the viewfinder	7
Viewfinder indications	8
Grip strap	9
Tripod mounting	9
Shooting postures	10
Connections	11
Recording operation	13
Color temperature setting	15
Iris control	17
Focusing	19
Zooming	19
Macro shots	20
Sensitivity switch	21
Sound recording	21
Remote control unit RM-P4U (optional)	22
Supplemental information	23
In case of difficulty	25
Specifications	26

FEATURES

Compact and lightweight
Weighing in at only 1.25 kg (2.75 lbs), the truly handy GZ-S3 presents a new feel for video camera operation.

Color reproduction that's comparable to a three-tube camera
The use of a 1/2″ Saticon tube — newly developed using the same technology as the Saticon tubes used in three-tube cameras — achieves greatly improved color balance and color reproduction.

Clear picture with reduced lag and burn
Compared to that of a vidicon tube, the Saticon's face plate is substantially less susceptible to lag and burn. To avoid image retention when shooting a bright subject, a bias light and an ABC (Automatic Beam Control) circuit are also provided.

Horizontal resolution of more than 270 lines
The combination of the Saticon tube with a newly developed color stripe filter has improved horizontal resolution to more than 270 lines.

High sensitivity allows shooting under lighting as low as 30 lux (2.8 fc)
The sensitivity select switch allows shooting under lighting as low as 30 lux (2.8 fc) while maintaining a sufficiently high S/N ratio. "Available-light" recording is possible in the true sense of the word.

High-performance 6X power zoom lens
The bright f/1.2, 6X power zoom lens with macro capability is linked to an automatic iris control circuit with EE lock and manual override.

Newly developed electronic viewfinder with 1″ mini CRT
The 1″ electronic viewfinder can be attached to the camera in two different ways to suit the situation. It's easy to operate and also allows playback monitoring. The viewfinder includes indicators for VCR mode (pause or record), tape running, under-exposure, battery power warning, tape-end warning, sensitivity switch setting, white balance adjustment and the position of the built-in conversion filter.

Two audio channels for flexible soundtrack recording
When combined with a stereo-capable VCR, the GZ-S3 allows stereo recording from an external stereo microphone (optional).

Optional remote control unit RM-P4U
The RM-P4U lets you start or stop the camera, zoom the lens and even switch the HR-C3 power on or off from a distance.

Other convenient features
- The built-in color conversion filter maintains the same color reproduction in outdoor shooting as in indoor shooting.
- The white balance switch with preset and adjustment positions makes color temperature adjustment easier.
- Carefully designed grip allows the camera to be held comfortably for long periods.
- Low power consumption of only 5.9 watts including the electronic viewfinder.

PRECAUTIONS

Be careful not to burn the Saticon tube.

Do not aim the camera lens directly at extremely bright objects such as the sun or other strong light sources.

Do not keep the lens directed at bright lights for long periods. These careless or incorrect uses could damage the Saticon tube. Therefore, be sure to keep the lens capped except during shooting.

If the aperture is left open, even while the camera is not being powered, the Saticon tube could be burned. Make it a rule to put the lens cap over the lens after each recording session.

Do not expose the camera to high temperatures over 50°C (122°F) for long periods.

If the camera should be subjected to direct sunlight, or left in a closed car in summer, or placed near a heater, the Saticon tube may deteriorate and the cabinet may become deformed. Furthermore, this also may cause the transistors and other electronic and mechanical parts to malfunction.

Remember the following:

– Do not leave the camera in places of over 50°C (122°F).

– Do not use the camera in places of over 40°C (104°F).

– Do not store the camera in places of over 30°C (86°F) for long periods.

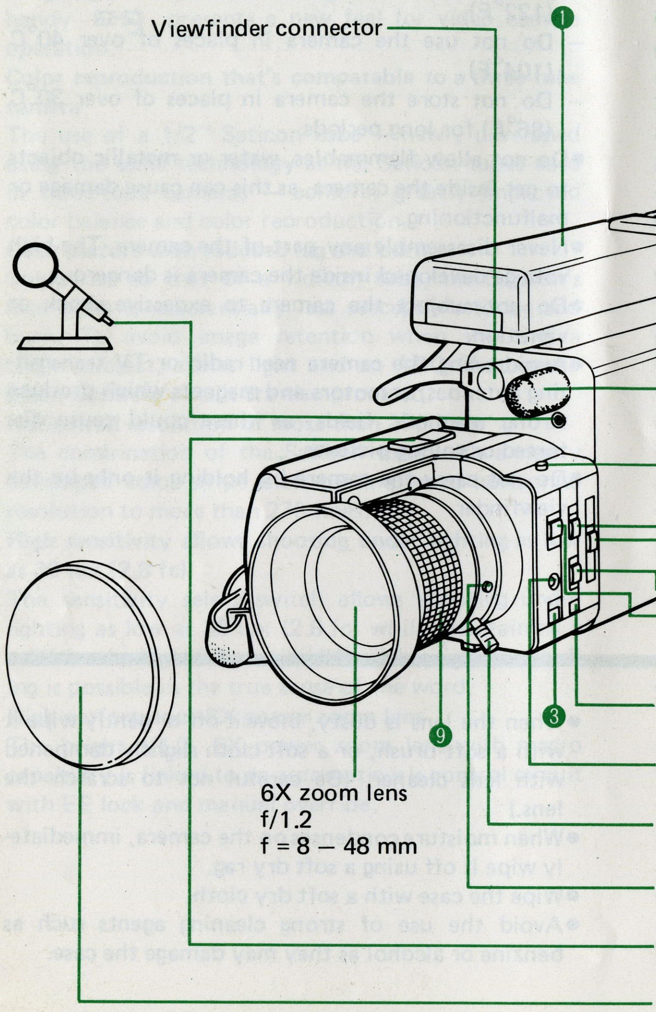
- Do not allow flammables, water or metallic objects to get inside the camera, as this can cause damage or malfunctioning.
- Never disassemble any part of the camera. The high voltage developed inside the camera is dangerous.
- Do not subject the camera to excessive shock or vibration.
- Avoid using the camera near radio or TV transmitting antennas, or motors and magnets which produce strong magnetic fields, as these could cause distorted or rolling pictures.
- Do not carry the camera by holding it only by the viewfinder.

MAINTENANCE

- Apply power and operate the camera at least 1 to 2 hours once every six months. The pickup tube will lose efficiency with age if the camera is not used for a prolonged time.
- The camera is adversely affected by dust and moisture. For storing the camera, select a place not subject to high temperature and/or humidity, or extremely low temperature.
- When the camera is dusty, clean by gently wiping with a soft cloth.
- When the lens is dusty, blow it off or gently wipe it with a soft brush, or a soft cloth slightly dampened with lens cleaner. (Be careful not to scratch the lens.)
- When moisture condenses on the camera, immediately wipe it off using a soft dry rag.
- Wipe the case with a soft dry cloth.
- Avoid the use of strong cleaning agents such as benzine or alcohol as they may damage the case.

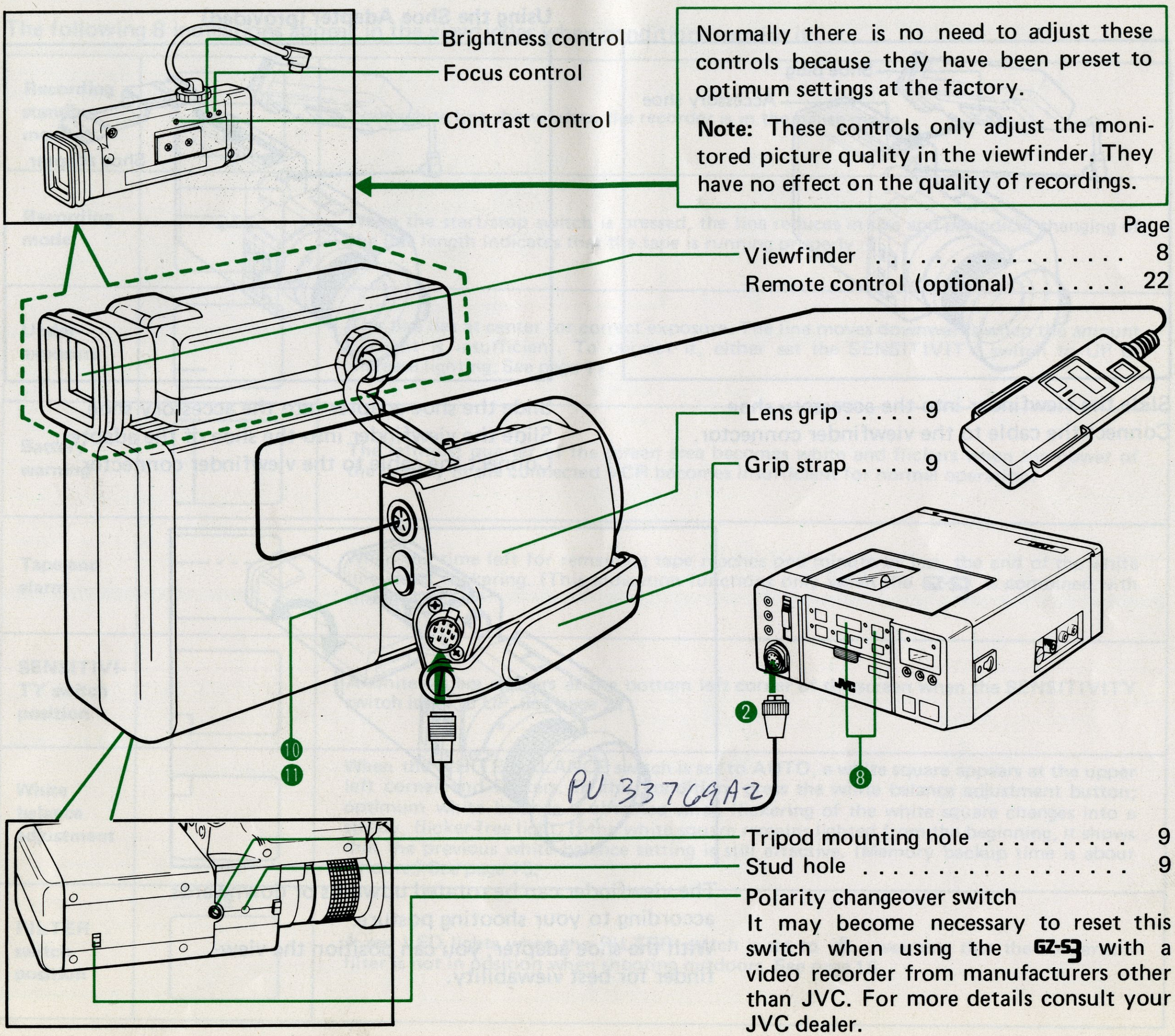
BASIC OPERATION PROCEDURE Shooting under normal daytime conditions

Step	Page
1 Attach the viewfinder	7
2 Connect a video recorder	11
3 Switch on the recorder power	13
4 Set the FILTER switch to ☀	15
5 Set the WHITE BALANCE switch to STD	15
6 Set the IRIS control to AUTO	17
7 Set the SENSITIVITY switch to STD	21
8 Press the recorder's REC and PLAY buttons simultaneously	13
9 Focus in on a subject	19
10 Press the start/stop switch to start shooting	14
11 To temporarily stop shooting, press the start/stop switch once again	14



Part	Page
Built-in microphone	21
Iris lock button	17
White balance set button	16
Power indicator	13
Zoom lever	19
Macro switch	20
Power zoom buttons	19
Lens cap	4

MOUNTING THE VIEWFINDER



Brightness control

Focus control

Contrast control

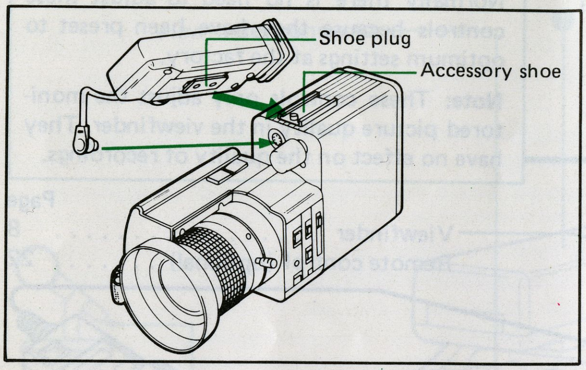
Normally there is no need to adjust these controls because they have been preset to optimum settings at the factory.

Note: These controls only adjust the monitored picture quality in the viewfinder. They have no effect on the quality of recordings.

	Page
Viewfinder	8
Remote control (optional)	22
Lens grip	9
Grip strap	9
Tripod mounting hole	9
Stud hole	9

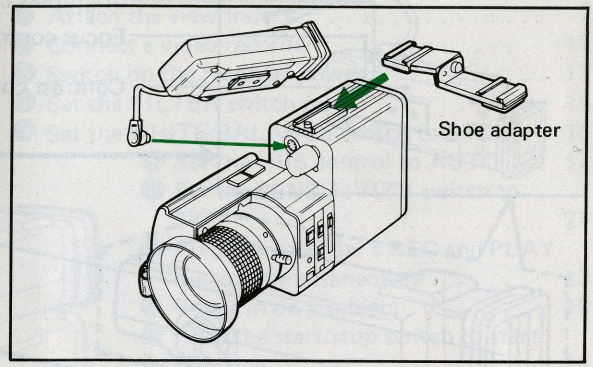
Polarity changeover switch
It may become necessary to reset this switch when using the GZ-S3 with a video recorder from manufacturers other than JVC. For more details consult your JVC dealer.

MOUNTING THE VIEWFINDER

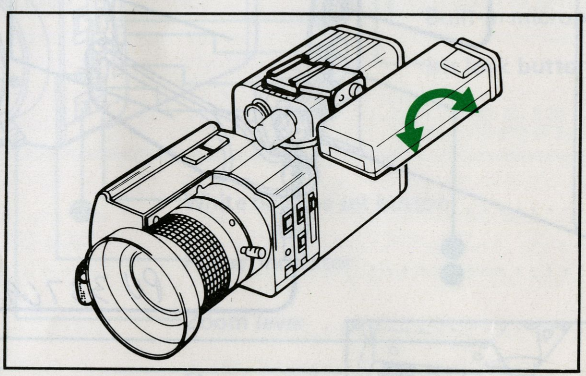


Slide the viewfinder into the accessory shoe.
Connect the cable to the viewfinder connector.

Using the Shoe Adapter (provided)



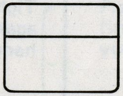
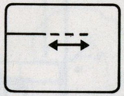
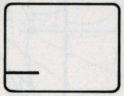
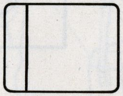
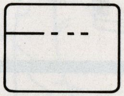
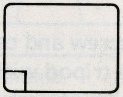
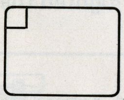
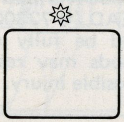
Slide the shoe adapter into the accessory shoe.
Slide the viewfinder into the shoe of the adapter.
Connect the cable to the viewfinder connector.



The viewfinder can be rotated upwards or downwards according to your shooting posture.
With the shoe adapter, you can position the viewfinder for best viewability.

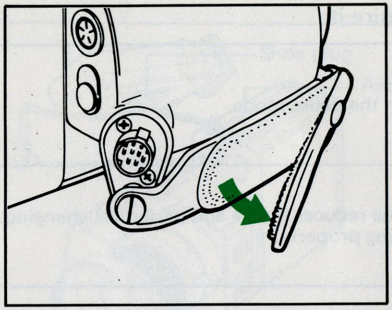
VIEWFINDER INDICATIONS

The following 8 indications appear in the viewfinder when conditions require it.

Recording standby mode		Long white line shows when the recorder is in the pause mode.
Recording mode		When the start/stop switch is pressed, the line reduces in size and periodical changing of the line length indicates that the tape is running properly.
Under-exposure		The line lies at center for correct exposure. The line moves downwards when the amount of light is insufficient. To correct it, either set the SENSITIVITY switch to UP or increase lighting. See page 17.
Battery warning		The leftmost quarter of the screen area becomes white and flickers when the power of the battery in the connected VCR becomes insufficient for normal operation.
Tape-end alarm		When the time left for remaining tape reaches one minute or less, the end of the white line starts flickering. (This indication functions only when the GZ-S3 is combined with the HR-C3.)
SENSITIVITY switch position		A white square appears at the bottom left corner of the screen when the SENSITIVITY switch is set to UP. See page 21.
White balance adjustment		When the WHITE BALANCE switch is set to AUTO, a white square appears at the upper left corner and flickers. In this condition, press the white balance adjustment button; optimum white balance is obtained when flickering of the white square changes into a steady, flicker-free light. If the white square remains lighted from the beginning, it shows that the previous white balance setting is still effective. (Memory backup time is about 3 hours.) See page 15.
FILTER switch position		A red LED lights when the FILTER switch is set to ☀, warning that the conversion filter is not in position when shooting outdoors. See page 15.

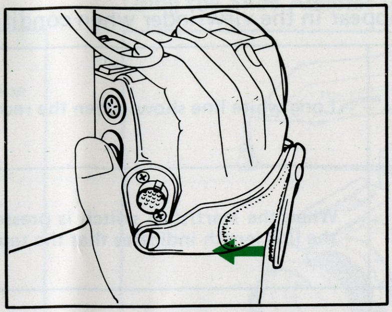
GRIP STRAP

1



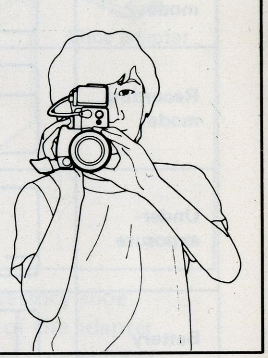
Separate the Velcro strip to expand the loop.

2

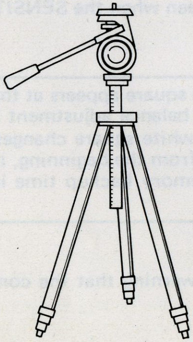


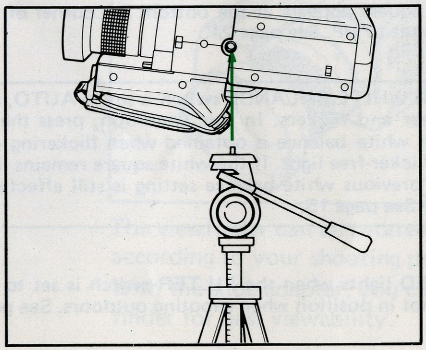
Pass your right hand through the loop and grasp the lens grip. Adjust the length of the strap to suit your hand size and refasten the Velcro strip.

Tighten the strap firmly against the back of your hand.



TRIPOD MOUNTING



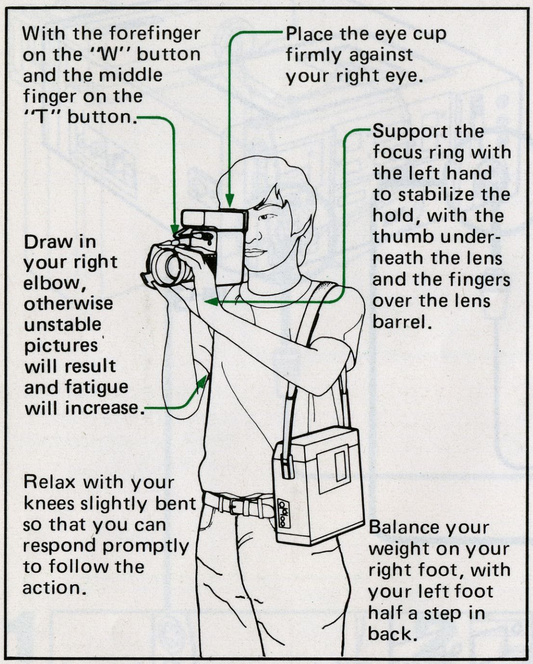


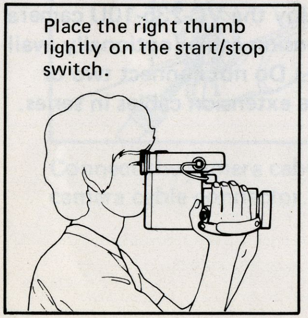
Align the screw and camera direction stud of the tripod with the camera's tripod mounting socket and stud hole, and firmly tighten the screw.

Note:
This video camera may be used only with a SAMSON tripod Model 4-73010-7 (CAM HEAD 4-72300-3). The tripod legs should be fully spread. Use with other tripods may result in instability causing possible injury.

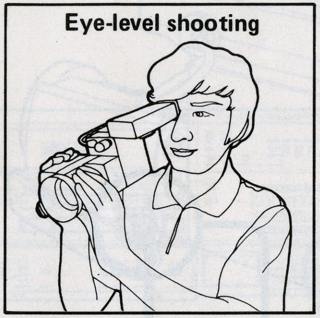
SHOOTING POSTURES

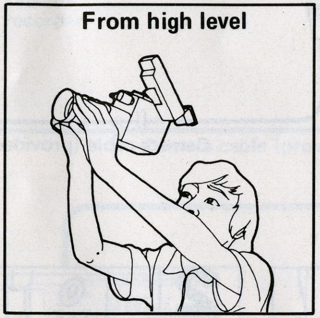
Basic posture

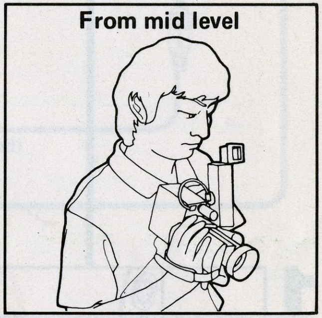


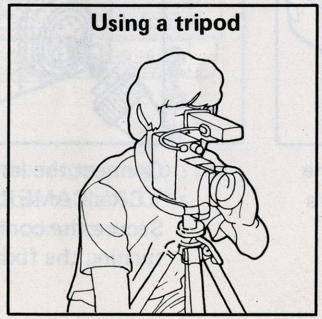

Place the right thumb lightly on the start/stop switch.

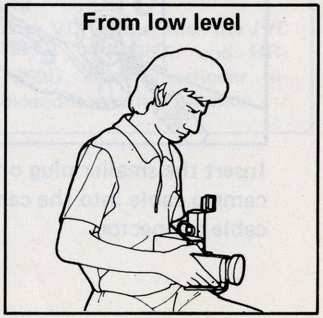
Various postures using the shoe adapter


Eye-level shooting

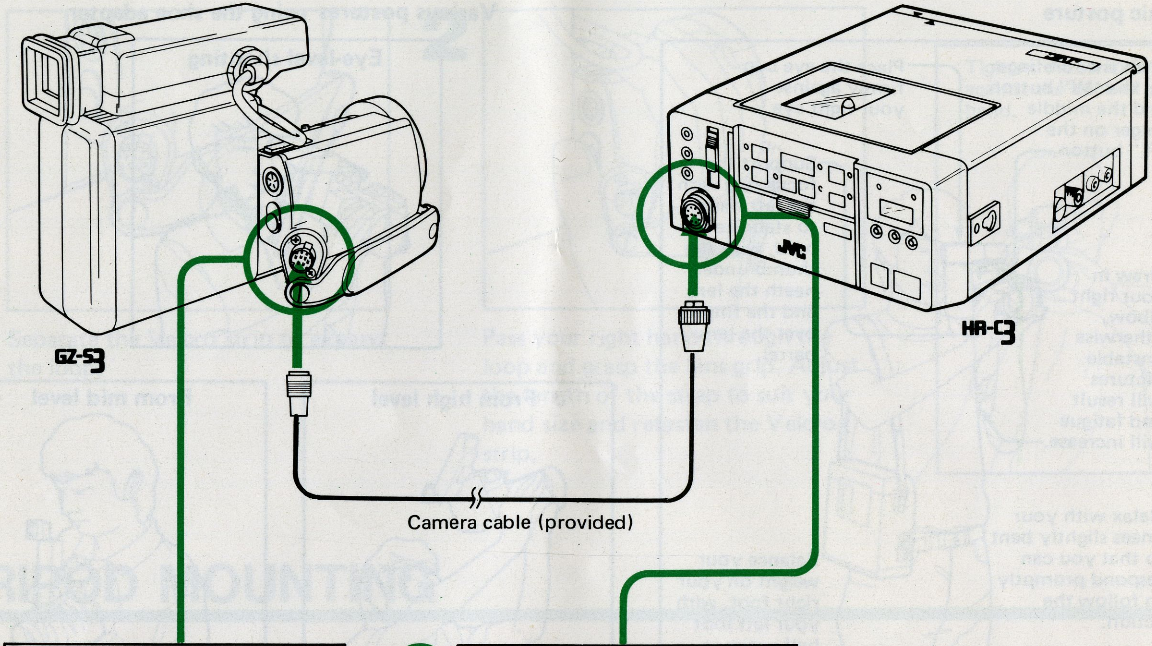

From high level


From mid level

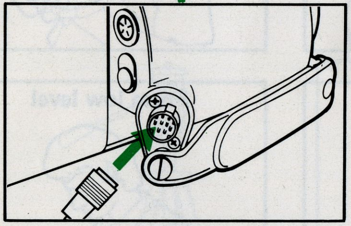

Using a tripod


From low level

CONNECTIONS Connecting to the HR-C3 recorder

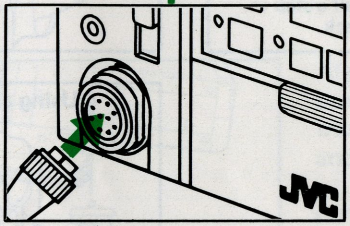


1



Insert the smaller plug on the camera cable into the camera cable connector.

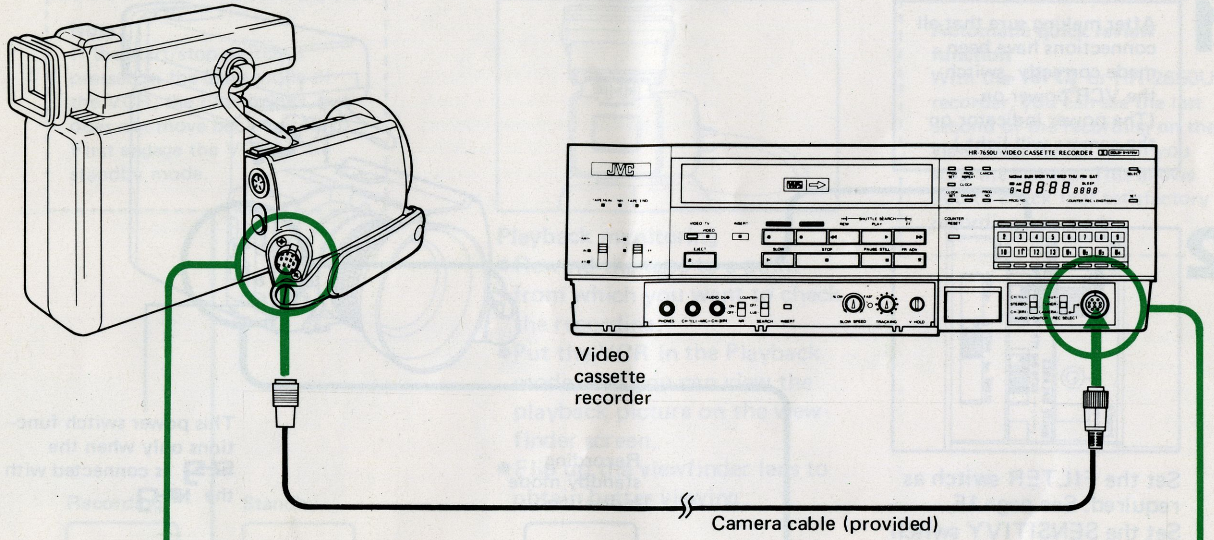
2



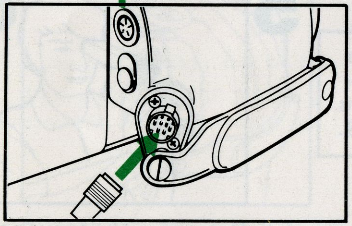
Connect the larger plug to the VCR's CAMERA connector. Secure the connection by turning the fixing ring.

If the camera cable is too short, employ the VC-235-10U camera extension cable (optionally available.) Do not connect two or more extension cables in series.

Connecting to a VCR equipped with a camera connector

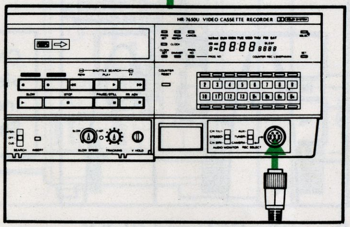


1



Connect the camera cable to the camera cable connector.

2



Connect the larger plug on the camera cable to the VCR's CAMERA connector.

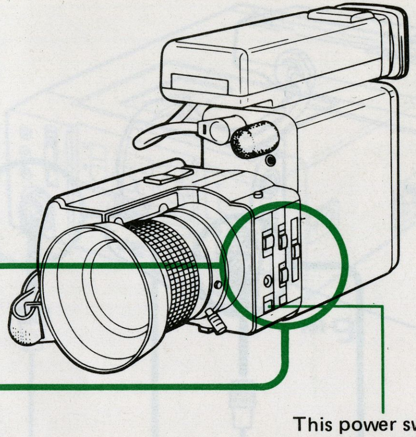
Note

- With VCRs other than the JVC HR-C3, HR-2650U and HR-7650U, some viewfinder indications may not function.

RECORDING OPERATION

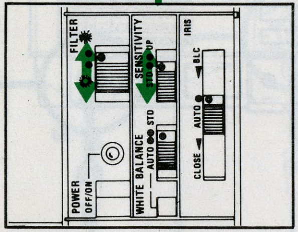
1

After making sure that all connections have been made correctly, switch the VCR power on.
(The power indicator on the camera will light.)



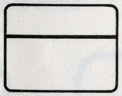
This power switch functions only when the GZ-S3 is connected with the HR-C3.

2

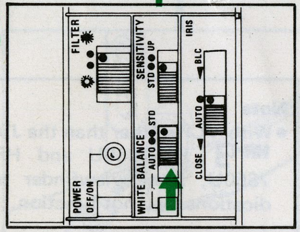


Set the FILTER switch as required. See page 15.
Set the SENSITIVY switch as required, see page 21.

Recording standby mode indication

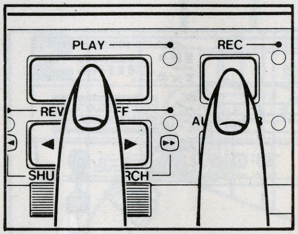


3



Set the WHITE BALANCE switch to STD.
For adjustment of white balance, see page 16.

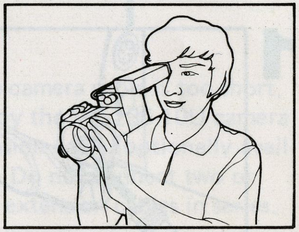
4



Check the viewfinder indications. See page 8.

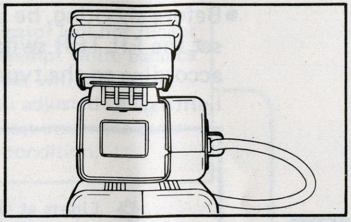
Press the REC and PLAY buttons simultaneously. The recorder enters the recording standby mode.

5



Determine the focus and composition by referring to the viewfinder image. For focusing and zooming, see page 19.

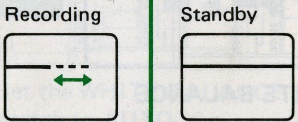
Note
If the start/stop switch is pressed in the Stop mode of the VCR, the line shrinks, but does not move back and forth. First engage the VCR in the standby mode.



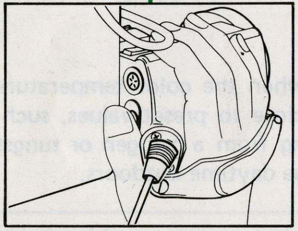
Playback monitoring

- Rewind the tape to a point from which you want to check the recording.
- Put the VCR in the Playback mode, and you can view the playback picture on the viewfinder screen.
- Flip up the viewfinder lens to obtain better viewing.

Automatic quick review function
With the HR-C3 or HR-2650U recorder, you can see the last second of the recording on the viewfinder screen when you stop the camera. This allows you to check that satisfactory recording was made.



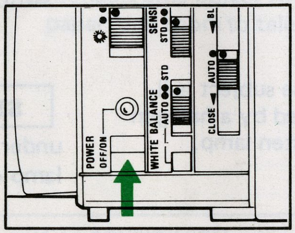
6

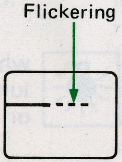


Press the start/stop switch.

- This causes the white line on the viewfinder screen to shrink and start moving back and forth, showing that recording is actually taking place.

7





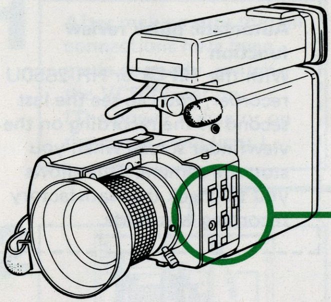
Notes:

- When combined with the HR-C3, the tape-end warning appears about one minute before the end of the tape.
- VCRs without standby lock function cannot produce smooth edits if power is switched off between takes.

To stop recording temporarily, press the start/stop switch once again.

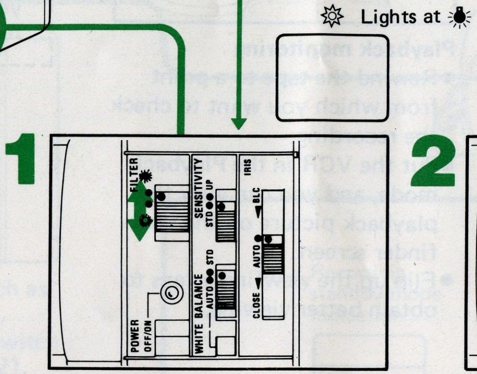
- If you need to remain in the standby mode for longer than 5 minutes, first set the REC LOCK button to ON (if provided on your VCR), and then switch the VCR power off. When combined with the HR-C3, its power can be switched off with the camera's switch.

COLOR TEMPERATURE SETTING



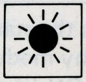
For more information on color temperature and white balance, refer to page 23.

- Before shooting, be sure to set the FILTER switch according to the type of lighting.

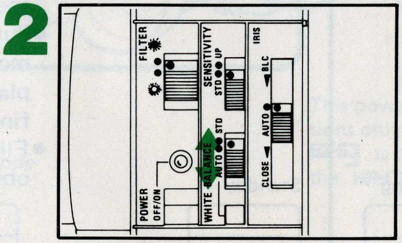


Set the FILTER switch to:

when the subject is illuminated by a halogen or tungsten lamp.


when you shoot in the daytime outdoors.

- The WHITE BALANCE switch is to select two different functions; shooting at a preset color temperature or at a color temperature exactly corresponding to the shooting situation.

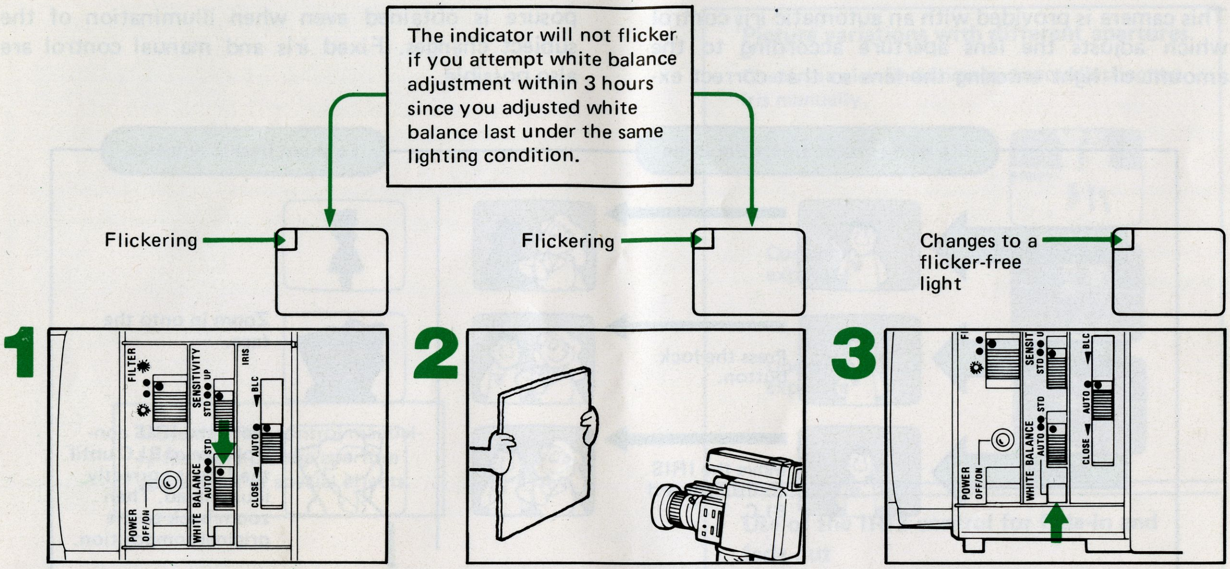


If you use the AUTO position, proceed to next step.

Set the WHITE BALANCE switch to:

STD when the color temperature is close to preset values, such as under lighting from a halogen or tungsten lamp or in the daytime outdoors.

AUTO when accurate white balance adjustment is needed, or when the color temperature of lighting is unknown, such as under mixed artificial lighting, fluorescent lighting, a cloudy or rainy sky, or in the morning or evening.



Set the WHITE BALANCE switch to AUTO.

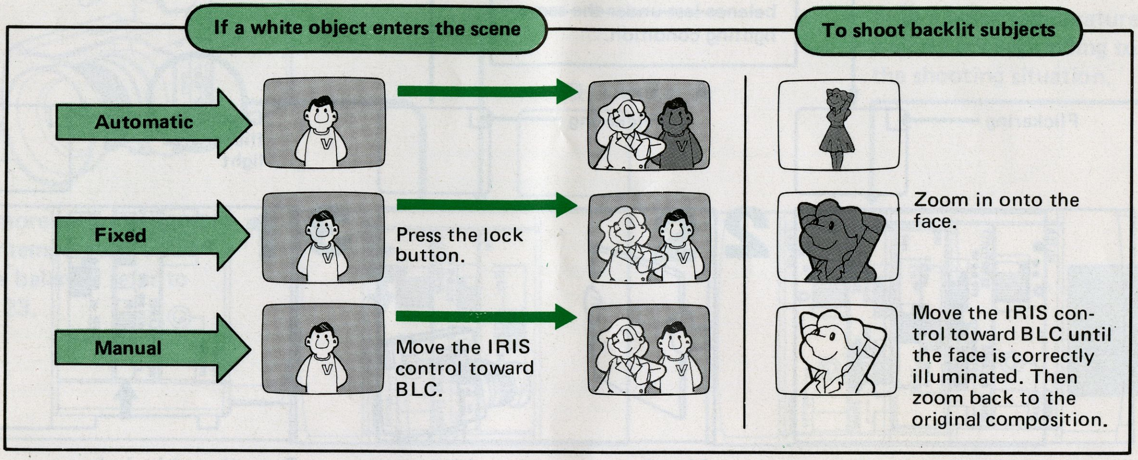
Aim the camera at a white or monochrome object (wall or paper) and zoom to telephoto.

Press the white balance adjustment button until the indicator stops flickering and remains lighted.
If the indicator will not stop flickering, either add illumination or shoot with the switch in the STD position.

Notes:
- If you shoot more than 3 hours after the last white balance adjustment, or when lighting conditions change, re-perform white balance adjustment.
- If the SENSITIVITY switch position is changed, re-perform white balance adjustment.
- White balance adjustment will not be possible in darker places. Use the STD position.

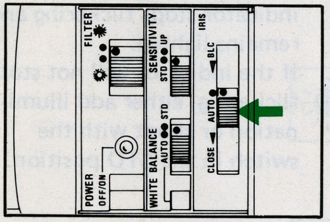
IRIS CONTROL

This camera is provided with an automatic iris control which adjusts the lens aperture according to the amount of light entering the lens so that correct exposure is obtained even when illumination of the subject changes. Fixed iris and manual control are also possible.



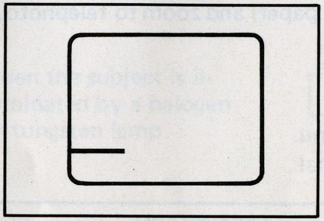
Automatic iris control

1



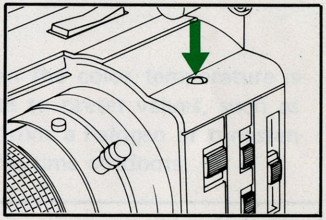
Set the IRIS control to AUTO.

2



If the line on the viewfinder screen is lower than center, the amount of light is insufficient. Set the SENSITIVITY switch to UP, or increase the lighting.

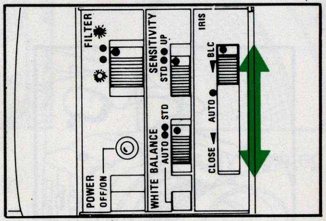
Fixed iris



Press the iris lock button, and the aperture setting adjusted in the AUTO mode will be locked as long as the button is being pressed even when the brightness of the subject varies.

Move the IRIS control manually for more precise aperture adjustment or special effects.

Manual iris control



To reduce aperture, move the IRIS control toward CLOSE (where the aperture is completely closed).
To increase aperture, move the IRIS control toward BLC (where the aperture is about 1 f-stop wider than the setting in the AUTO mode).

The fixed iris mode may improve the results:

- when the situation of a subject is changed into being backlit
- when a bright sky enters the frame while zooming out
- when panning from light to dark subjects (or vice versa)
- when a white object moves in and out of the scene

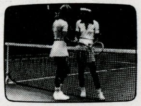
Picture variations with different apertures

Check the viewfinder image when adjusting the iris manually.

Over-exposure

Correct exposure

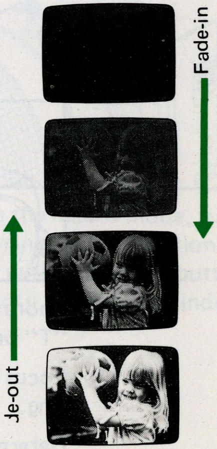
Under-exposure



Use of the IRIS control for fade-in and fade-out

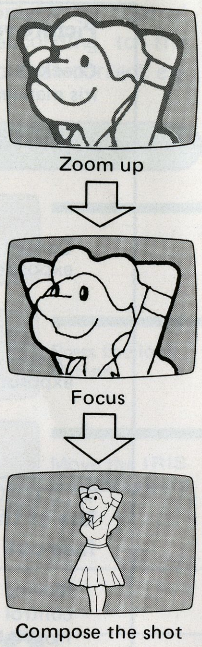
Moving the IRIS control gradually from AUTO to CLOSE will give a fade-out effect.

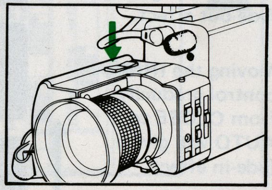
Moving the IRIS control gradually from CLOSE to AUTO will give a fade-in effect.



FOCUSING

The basic guideline is to focus the lens in the maximum telephoto position. If you focus in on a certain subject in the wide-angle position, sharply-focused images cannot be obtained when it is zoomed up because the depth of field is reduced at longer focal lengths.





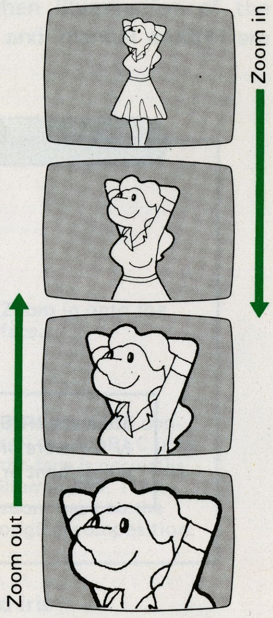
Zoom in on a subject by pressing the "T" button.

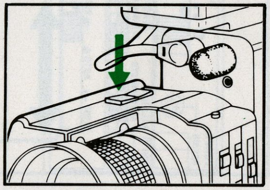
Focus onto it by turning the focus ring.

Determine the composition by pressing the "W" button.

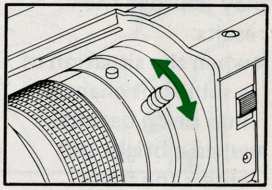
ZOOMING

When the focal length of the lens is varied by turning the zoom ring, the image appears to come nearer to or retreat from the viewer.





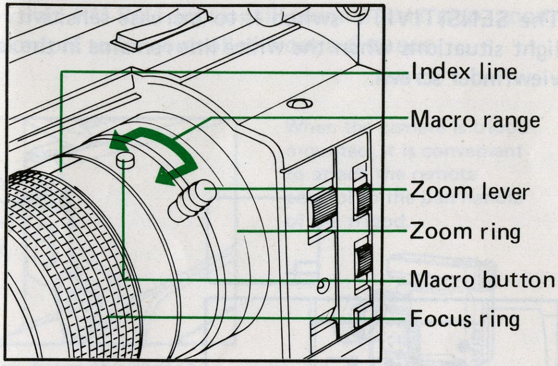
Power zooming
Press "T" for zooming in and "W" for zooming out.



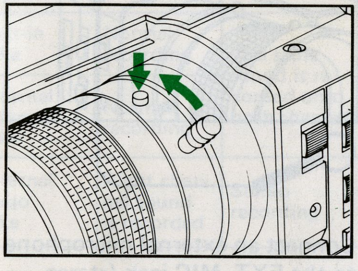
Manual zooming
Rotate the zoom lever upwards for zooming in and downwards for zooming out.

MACRO SHOTS

Normally, focusing is possible only for subjects that are more than 1.2 m (4 ft) away from the camera. By setting the lens to MACRO, it is possible to focus in on any subject located inside that limit, right up to the front of the lens. The MACRO and ZOOM ranges combined give continuous shooting ability from zero to infinity.

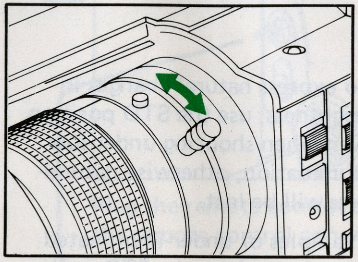


Engage MACRO



While pushing in the macro button, turn the zoom ring in the direction of the arrow until the macro button passes the index line.

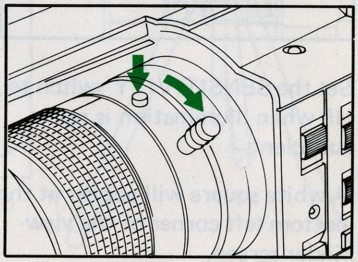
Focus



Focus by turning the zoom ring slowly.

- Use the zoom ring to focus in the MACRO range.
- Turning the focus ring will slightly alter the angle of view of the lens.

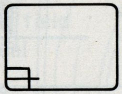
Release MACRO

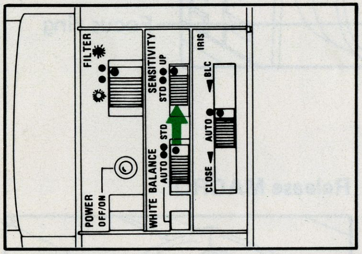


To release the macro mode, turn the zoom ring in the direction of the arrow with the macro button pressed, until it passes the index line.

SENSITIVITY SWITCH

The SENSITIVITY switch is to increase sensitivity electrically in low-light situations when the white line remains in the lower portion on the viewfinder screen.





Set the SENSITIVITY switch to UP when illumination is not sufficient.

A white square will appear at the bottom left corner of the viewfinder screen.

Note
There is some loss in picture quality and color reproduction in the UP position. Therefore, wherever possible, increase the lighting and use the STD position.

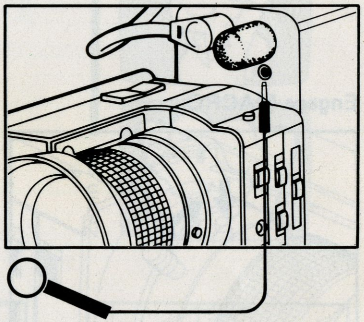
To express natural changes in brightness, use the STD position even when shooting under low illumination, otherwise naturalness will be lost.

Examples of under-illuminated situations where the STD position may give better results:
- when shooting a gradually darkening sky
- when you want to present darker settings realistically
- when shooting scenes of fireworks or neon signs

SOUND RECORDING

This camera has two audio channels to make stereo recordings possible when used with a stereo VCR. With such VCRs, sound from the built-in microphone is recorded onto both channels.

When an external microphone is connected, the built-in microphone is automatically switched off.



Connect an external microphone to the EXT. MIC jack (stereo mini).

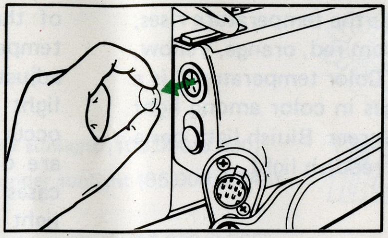
REMOTE CONTROL UNIT RM-P4U (Optional)

Sound recording possibilities

Recorder / Microphone	HR-C3	Stereo VCRs
Built-in mike	Normal recording	The same sound is recorded onto both channels
External monaural mike	Normal recording	The same sound is recorded onto both channels
External stereo mike	Right channel sound is recorded	Stereo recording

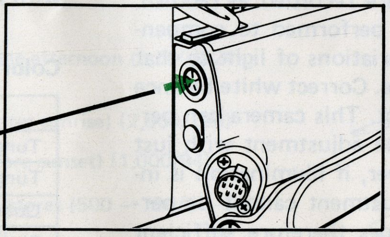
The remote control unit RM-P4U (optional) permits start/stop, zooming and VCR power on/off to be controlled from a distance.

1

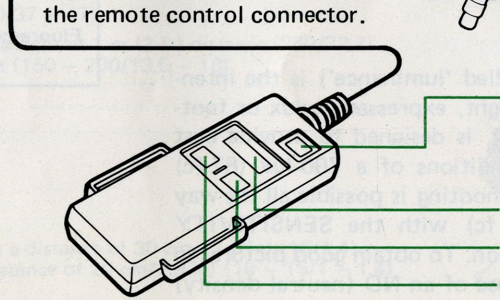


Remove the cap from the remote control jack.

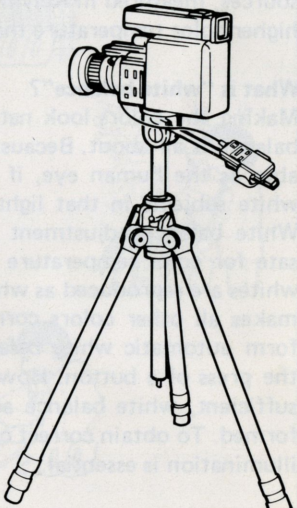
2



Plug the remote control cable into the remote control connector.



When the camera is tripod-mounted, it is convenient to attach the remote control to the pan handle of the tripod.



SUPPLEMENTAL INFORMATION

What is "color temperature"?
Light is composed of various color components in different proportions. A relationship exists between the temperature of a light source and the color components of the emitted light; as the temperature rises, the color of the light varies from red, orange, yellow, white to blue in that order. "Color temperature" is a value that expresses differences in color among light sources, measured in Kelvin degrees. Bluish light has a higher color temperature than reddish light.

What is "white balance"?
Making the colors look natural on TV is what white balance is all about. Because a camera is not as adaptable as the human eye, if a light source is reddish, white subjects in that light are recorded as reddish. White balance adjustment is performed to compensate for color temperature variations of light so that whites are reproduced as white. Correct white balance makes all other colors correct. This camera can perform automatic white balance adjustment with just the press of a button. However, if illumination is insufficient, white balance adjustment cannot be performed. To obtain correct colors, therefore, sufficient illumination is essential.

What is "illuminance"?
"Illuminance" (also called 'luminance') is the intensity or brightness of light, expressed in lux or foot-candles (fc). The GZ-S3 is designed to provide best pictures under the conditions of a 700-lux (67 fc) illuminance, although shooting is possible all the way down to 30 lux (2.8 fc) with the SENSITIVITY switch in the UP position. To obtain good pictures in very bright light, the use of an ND (neutral density) filter is recommended. (See chart on next page.)

How to get good color pictures
The simplest way is to provide sufficient lighting (close to the camera's reference illuminance) and accurately adjust the camera to the color temperature of that lighting. If light sources of different color temperatures are used together, accurate white balance adjustment is very difficult. For example, if natural light is mixed with artificial light, which is likely to occur next to windows, correct colors of the subject are difficult to obtain. It is recommended in such cases that curtains in the room be closed to shut out light from outside. Also, when artificial lighting devices are used, they should all have the same color temperature. For example, it is recommended that incandescent or halogen lamps not be used together with fluorescent lighting.

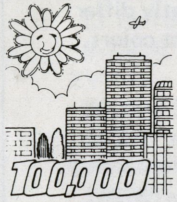
Color temperatures of various artificial lighting

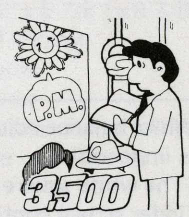
Type of illumination		Color temperature
Tungsten lamp for home use		2800°K
Tungsten lamp for photographic use		3200°K
Quartz-halogen lamp		
Blue lamp for photographic use		5000°K
Fluorescent lamp	Warm white	3500°K
	White	4500°K
	Daylight type	6500°K

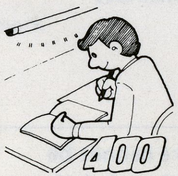
Illuminance chart

- The values on this chart are approximated to give you a rough reference.

ND filter desired	Unit: Lux (fc)	
ND filter desired	100,000 (9,300)	• Clear sky, mid-day, under sunlight (100,000/9,300) • Clear sky (10:00 a.m.) under sunlight (65,000/6,045)
Range for practical use		• Clear sky (3:00 p.m.) under sunlight (35,000/3,255) • Cloudy sky (mid-day) under sunlight (32,000/2,976) • Cloudy sky (10:00 a.m.) under sunlight (25,000/2,325)
Range for practical use	10,000 (930)	
Range for practical use		• By the window during the afternoon (3,500/324)
Range for practical use	2,000(190)	• Cloudy sky (one hour after sunrise) (2,000/190)
Range for practical use	1,000(94)	• Clear sky (one hour before sunset) (1,000/94)
Lighting desired	600(55)	• Counters at department stores (500 – 700/47 – 66)
Lighting desired	500(47)	• Bowling center (500/47) • Office under fluorescent light (400 – 500/37 – 47) • Library (400 – 500/37 – 47) • Direct light of a flashlight at 1 m (3 ft) distance (250/22.7)
Lighting desired	100(9)	• Streetlights at night (150 – 200/13.5 – 18)
Lighting desired	80(7.3)	
Lighting necessary	Minimum lighting for an object	
Lighting necessary	30(2.8)	
Lighting necessary	10(1)	• Cigarette lighter (at a distance of 30 cm/11.8 in) (15/1.4) • Candlelight (at a distance of 20 cm/7.9 in) (10 – 15/1 – 1.4)







IN CASE OF DIFFICULTY

What may initially appear to be trouble is not always a real problem. Make sure first . . . .

Symptoms	Check points
Picture colors greatly differ from actual subject colors.	Have you adjusted the FILTER switch correctly? (See page 15.) Have you moved to a different location after adjusting the white balance? Or are you shooting at some later time in the day with the same white balance adjustment? ● In these cases, it is necessary to re-adjust white balance. (See page 16.) Are you shooting with the WHITE BALANCE switch in the STD position under mixed lighting or a cloudy sky? ● When the color temperature of the lighting is unknown, adjust white balance.
White balance adjustment is impossible. (The white square on the view-finder screen continues flickering.)	Have you aimed the camera at a white object? With colored objects such as red or green, white balance adjustment is impossible. Have you set the FILTER switch correctly first? Is the exposure indicator line lower than the center? ● This shows that the amount of light is insufficient, and white balance adjustment cannot be performed. Increase the lighting.
Normal exposure cannot be obtained, sometimes halation and sometimes black-out occur.	Check whether the IRIS control has accidentally moved out of the AUTO position. Have you shot with the iris lock button pressed? ● Use the fixed iris only for special cases. (See page 18.)
Sound cannot be recorded with an external microphone.	Have you switched on the external microphone?
Recording does not start even when the white line on the viewfinder screen reduces in size.	Have you pressed the REC and PLAY buttons of the connected VCR?

GZ-S3U SPECIFICATIONS

Pickup tube	: 1/2″ Static-Magnetic SATICON* single tube
Color system	: Single carrier, frequency separation color system
Scanning system	: 30 frames 525 lines, 2:1 interlaced
Video output	: 1 Vp-p 75 ohms, NTSC-type output
Horizontal resolution	: Better than 270 lines
S/N ratio	: Better than 45 dB
Sensitivity	: 30 lux (2.8 fc) with sensitivity switch UP
Audio output	: CH-1 and -2, –20 dB/1 kohm
Built-in microphone	: Omni-directional condenser microphone (CH-1) –68 dB/2.5 kohms
External microphone input	: CH-1 and -2, –68 dB/ Low impedance 3.5 mm mini jack
Lens	: 6:1 power zoom lens (8 — 48 mm) f/1.2 with macro and auto shutter
Iris	: Auto iris/E-E lock/Manual control
Color temperature switch	: Indoor (3200°K)/Outdoor (W12) position
White balance	: Auto white balance/preset switchable
Viewfinder	: 1″ electronic viewfinder, detachable
Indicator & alarm	: 8-mode indication in viewfinder (pause, tape run, battery alarm, white balance, under-exposure, sensitivity, filter, tape end)
Power requirement	: DC 12 V ⎓
Power consumption	: 5.9 watts
Dimensions	: Camera 100(W) x 115(H) x 223(D) mm (3-15/16″ x 4-9/16″ x 8-13/16″) EVF 60(W) x 35(H) x 159(D) mm (2-3/8″ x 1-7/16″ x 6-5/16″) Camera with EVF & lens hood 100(W) x 149(H) x 250(D) mm (3-15/16″ x 5-7/8″ x 9-7/8″)
Weight	: 1.25 kg (2.75 lbs)
Accessory	: Camera cable Shoe adapter Electronic viewfinder VF-P3U Lens hood Lens cap

*A registered trademark

JVC®

JVC COMPANY OF AMERICA

OC2 U Printed in Japan
PU30425-498